

551,389

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
14 October 2004 (14.10.2004)

PCT

(10) International Publication Number  
**WO 2004/088870 A1**

(51) International Patent Classification<sup>7</sup>: **H04B 3/54**,  
3/56, 1/00

(21) International Application Number:  
PCT/FI2004/000184

(22) International Filing Date: 30 March 2004 (30.03.2004)

(25) Filing Language: Finnish

(26) Publication Language: English

(30) Priority Data:  
20030471 31 March 2003 (31.03.2003) FI

(71) Applicant and

(72) Inventor: ROMUNEN, Jorma, Kullervo [FI/FI]; Kauri-  
inpelto T 170, FI-33880 Lempäälä (FI).

(74) Agent: NIEMINEN, Taisto; Patenttitoimisto T Nieminen  
Oy, Kehräsaari B, FI-33200 Tampere (FI).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

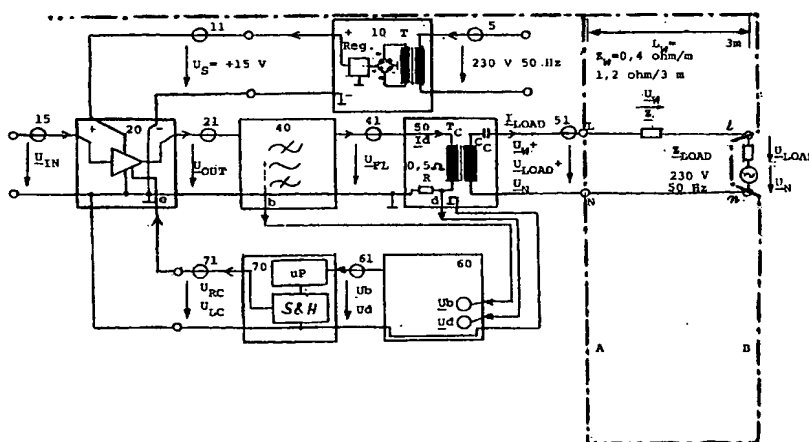
(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Euro-  
pean (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,  
GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,  
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: METHOD IN AN ELECTRIC NET DATA TRANSMISSION SYSTEM FOR KEEPING THE SIGNAL LEVEL CON-  
STANT IN A COUPLING FURNISHED WITH SUPPLY CABLE



(57) Abstract: Method in low voltage net data transmission system for keeping the signal level of transmission constant on the net voltage rail or on wall outlet. In the method the feedback signals are taken wired or wirelessly from one or some locations of the actual apparatus or supply cable to the measuring and handling unit (60) of transmitting signals and further to the process unit (70) of sample and holding circuit (S & H) or of corresponding means and control means (CONTROL), by which unit the control signal ( $U_{RC}$ ) and/or  $U_{LC}$ ) is taken to steer the output signal or output voltage of blocks (10, 20, 40 and/or 50) in a depending way from load impedance ( $Z_{LOAD}$ ) and from the series impedance ( $Z_W$ ) of supply cable ( $L_W$ ) so that the amplitude ( $U_{LOAD}$ ) of transmission signal level ( $U_{LOAD}$ ) on voltage rail or some location of the supply cable or on wall outlet is constant or almost constant.

WO 2004/088870 A1